U.S. Environmental Protection Agency
Fact Sheet # 15
Standard Chlorine of Delaware (aka Metachem) Site

Delaware City, New Castle County, Delaware

Superfund Site Cleanup Progress Update—September 2005

Over $10 Million Approved for Remedial Cleanup

The U.S. Environmental Protection Agency (EPA) has approved over $10 million for the remedial cleanup at the Standard Chlorine Site. The Columbia Aquifer containment barrier wall and the pump-and-treat system will account for approximately $4.2 million. The chemical disposal associated with the removal action will account for about $6.26 million. As part of the Record of Decision (ROD) Amendment #1, the EPA's remedial program will properly dispose of liquid chemicals that remain on-site.

Delaware Department of Natural Resources and Environmental Control (DNREC) has devoted approximately $3 million as part of the state's required assistance towards the remedial cleanup. This money is being used to dispose of bulk liquid chemicals.

To date, the remedial design (RD) for the Columbia Aquifer barrier wall and pump-and-treat system is 95 percent complete. Construction for the barrier wall and pump-and-treat system, also called "remedial action" or RA, should begin this winter.

The groundwater barrier design includes an underground wall ranging from 45- to 75-feet deep, which will surround the chemical plant area and adjacent areas that are the sources of the contaminants. The barrier will stop contaminants from migrating and allow the contaminated groundwater to go through the pump-and-treat system. This barrier wall is projected to take about one year to build.

While the wall is being constructed, the pump-and-treat system will also be installed, which will help control the groundwater level and keep the water pressure stable. When completed, the pump-and-treat system will draw groundwater up and treat it before discharging it to the surface.

EPA's Hazardous Site Cleanup Division (HSCD) **removal** program manages time-critical cleanup actions whereas the **remedial** program manages long-term cleanup remedies.

If you have questions about the remedial design and cleanup plan, or site-related health questions, and would like to talk with EPA, DNREC, the Delaware Department of Health and Social Services (DHSS), and/or the Agency for Toxic Substances and Disease Registry (ATSDR), please join us at the

Public Availability
Tuesday, October 11, 2005
6:00 p.m. until 8:00 p.m.
Grass Dale Center
108 Old Reedy Point Bridge Road
Delaware City, DE 19706

There will be a brief update/presentation that should last about 20 minutes starting at 6:15 p.m. Representatives will be available to discuss your concerns on a one-on-one basis after the brief presentation.

Comprehensive Groundwater Study

The Potomac Aquifer groundwater study is ongoing. EPA and DNREC are working as a team with scientists from the U.S. Geological Survey and the Delaware Geological Survey. The purpose of the study is to better understand the groundwater flow in the Potomac Aquifer, which could affect the flow of any site-related contaminants that may exist. The study will also explore the possibility of a connection, or passage, between the Columbia and Potomac aquifers. A comprehensive work plan is currently being developed and field operations are estimated to begin this fall.

EPA and DNREC began quarterly sampling of the Potomac Aquifer in November 2003. Although the comprehensive study mentioned above is in addition to and separate from the quarterly sampling, the study team will consider the data from the samples collected and apply that knowledge to the study.

Groundwater Sampling Results to Date

The results from the latest quarterly Potomac Aquifer well samples, collected in June 2005, are back. Here's what we found:

- All of the June 2005 sample results show no signs of site-related contamination ("non-detect").
- EPA and DNREC will continue to investigate groundwater quality and monitor the Potomac Aquifer.
- Quarterly sampling will help EPA and DNREC establish water quality trends and/or variations.
- The next round of samples will be collected the last week of September 2005.

The full results are available online at:
www.epa.gov/reg3hwmd/super/sites/DED041212473/PotamacQuarterlyMonitoringResults.pdf.
To request a hard copy of these results, please call Trish Taylor at 215-814-5539, or call the Superfund toll-free hotline at 800-553-2509.

Groundwater Flow

Groundwater is the supply of fresh water under the earth's surface. Unlike surface water, such as streams and rivers, groundwater flows *very* slowly. Groundwater tends to move from high to low points underground along a hydrologic gradient or slope, just like surface water. However, groundwater does not flow in a fast, straight line. It has to maneuver its way between layers of soil particles, sand and clay. Depending on the hydro-geology of the area, it can sometimes take groundwater up to 15 years to move one mile.

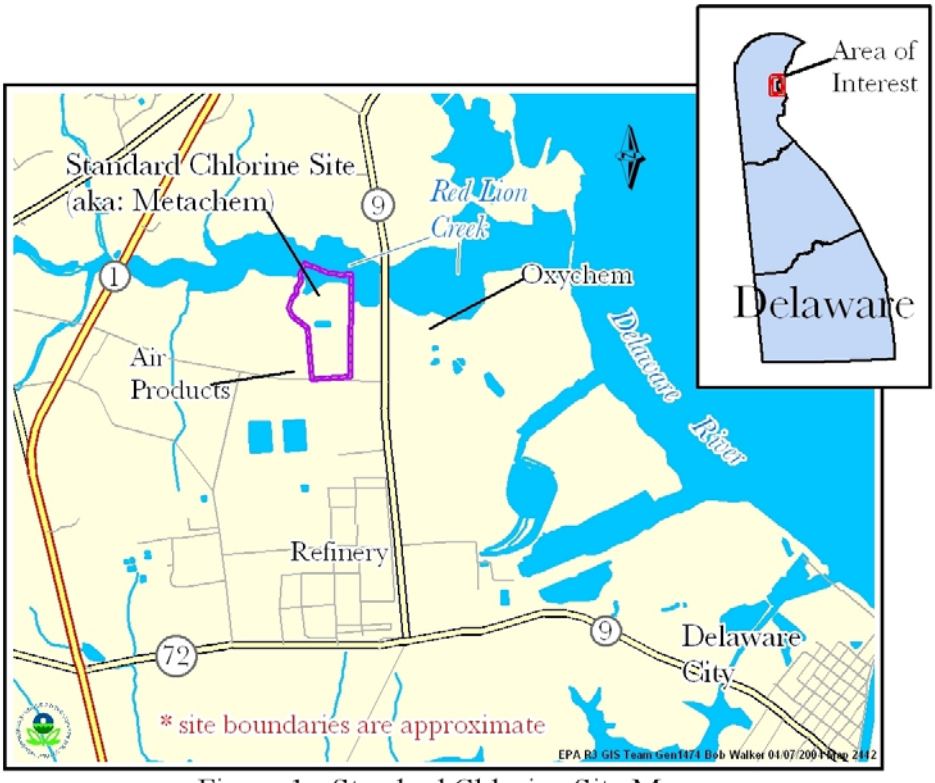

Figure 1 - Standard Chlorine Site Map

Removal Program Update: Site Cleanup Reaches Another Milestone

The removal action at the Site has reached another milestone. Cleanup crews have completed decontamination of the chemical processing area of the abandoned facility.

Here is a closer look at how the decontamination occurred:

- Initially, EPA and DNREC discovered approximately 43 million pounds of chemicals throughout the former manufacturing facility at the time of Metachem's bankruptcy in 2002.
- EPA consolidated liquid chemicals from over 100 holding tanks, cleaned the empty tanks, and demolished and removed some of the tanks from the Site.
- EPA and DNREC have removed millions of pounds of chemicals from the Site. Some of the chemicals were product and some were wastes.

  - Over 15 million pounds of product has been returned for use in commerce, which has generated more than $245,000 for Site cleanup operations, saved about $11 million in estimated disposal costs, and reduced the amount of new chemicals needed to be made by industry.
  - Approximately 7.5 million pounds of chemical wastes have been removed for proper disposal.
  - EPA has completed steam-cleaning the distillation equipment and piping, removing any chemical residuals. The cleanup crew has since discontinued operations of the on-site waste water treatment plant.

- Although the waste water treatment plant operations have ended, EPA is continuing to keep the technology available until all products and wastes are removed from the Site.
- Facility structures are being dismantled. Several tanks, piping, and other equipment have already been demolished, and the debris has been removed for proper disposal or recycling.
- Currently, EPA is concentrating on removing the remaining estimated 20 million pounds of chemicals from the Site. The majority of the waste is stored as a solid and securely contained in "totes" awaiting proper disposal.
- EPA's removal activities at the Site are about 80 percent finished.

↑EPA is overseeing the dismantling of facility structures.

↑Old on-site tanks are being demolished.

Administrative Record Locations

You can review site-related documents at the following locations:

Delaware Department of Natural Resources & Environmental Control Site Information and Restoration Branch, 391 Lukens Drive, New Castle, DE 19720, 302-395-2600, and at the **U.S. EPA Region 3 Public Reading Room**, 1650 Arch Street - 6th Floor, Philadelphia, PA 19103, 215-814-3157. Please call to schedule an appointment.

Frequently Used Acronyms

DNREC = Delaware Department of Natural Resources and Environmental Control

EPA = (U.S.) Environmental Protection Agency

RA = Remedial Action (long-term cleanup activities)

RD = Remedial Design (long-term cleanup work plan)

ROD = Record of Decision

For More Information

Please contact one of the following representatives:

Trish Taylor, Community Involvement Coordinator, US EPA, 215-814-5539
Hilary Thornton, Remedial Project Manager, US EPA, 215-814-3323
Michael Towle, On-Scene Coordinator, US EPA, 215-814-3272
Lynn Krueger, Project Manager, DNREC, 302-395-2600
Anita Beckel, Delaware Division of Public Health, Office of Drinking Water, 302-741-8630

or visit the following websites:

- www.epaosc.net/Metachem
- www.epa.gov/reg3hwmd/super/sites/DED041212473/index.htm
- www.dnrec.state.de.us/DNREC2000/Divisions/AWM/do/metachem.asp

This and previously mailed fact sheets are available for review online and are also at the **Delaware City Public Library**, located at 250 Fifth Street, Delaware City, DE 19706.

U.S. Environmental Protection Agency Region 3
Attn: Trish Taylor
1650 Arch Street (3HS52)
Philadelphia, PA 19103

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